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Serial No.: MS158300.2/MSFTP154USA

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of

Applicant: **Andrew Blake, et al.**  
Serial No.: **10/721,541**  
Filed: **November 25, 2003**  
For: **System and Method Providing Subpixel-Edge-Offset-Based Determination of Opacity**  
Art Unit: **2624**  
Examiner: **Unknown**

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Alexandria, Virginia 22313-1450

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120; or (c) U.S. Patent(s) and published applications(s) since the subject application was filed after June 30, 2003.

Serial No.: 09/748,562  
Filing Date: 12/22/2000

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) ☐ Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
- (b) ☐ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) ☐ Within 3 months of the filing date or date of entry into the National Stage.
- (b) ☒ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 50-1063 for consideration of this Statement.

(c) \_\_\_ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

(1) \_\_\_ The required certification is given below, or

(2) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or

(3) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 50-1063.

(d) \_\_\_ After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee.  
Petition hereby is made for consideration of this Statement and the required certification is indicated below.

(1) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or

(2) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(i)(1) to Deposit Account No. 50-1063.

4. Certification (if applicable)

(a) \_\_\_ The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) \_\_\_ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1063.

Respectfully Submitted,

By Jeffrey R. Sadlowski  
Jeffrey R. Sadlowski  
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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450.

Date: 5-25-2004

Jeffrey R. Sadlowski  
Jeffrey R. Sadlowski



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 2

**Complete if Known**

Application Number	10/721,541
Filing Date	November 25, 2003
First Named Inventor	Andrew Blake
Art Unit	2624
Examiner Name	Unknown
Attorney Docket Number	MS158300.2/MSFTP154USA

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 6,525,741	02-25-2003	Klassen, et al.	
		US- 5,630,037	05-13-1997	Schindler	
		US- 5,142,592	08-25-1992	Moler	
		US- 5,990,903	11-23-1999	Donovan	
		US- 5,737,455	04-07-1998	Harrington, et al.	
		US- 6,384,839	05-07-2002	Paul	
		US- 6,134,346	10-17-2000	Berman, et al.	
		US- 6,377,273	04-23-2002	Lee, et al.	
		US- 5,701,365	12-23-1997	Harrington, et al.	
		US- 6,301,382	10-09-2001	Smith, et al.	
		US- 6,128,046	10-03-2000	Totsuka, et al.	
		US- 6,317,525	11-13-2001	Aleksic, et al.	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/721,541
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				Art Unit	2624
				Examiner Name	Unknown
Sheet	2	of	2	Attorney Docket Number	MS158300.2/MSFTP154USA

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
		S.GHOSAL and R. MEHROTRA. Edge Detection Using Orthogonal Moment-base Operators. 11th IAPR International Conference on Pattern Recognition, pp. 413-416, 1992.		
		Y. XIAOHAN, J. YLA-JAASKI, and Y. BAOZONG. A New ALgorithm for Texture Segmentation Based on Edge Detection. Pattern Recognition, Vol. 24 No. 11, pp. 1105-1112, 1991.		
		S.S. IYENGAR and W. DENG. An Efficient Edge Detection Algorithm using Relaxation Labeling Technique. Pattern Recognition, Vol. 28 No. 4, 519-536, 1995.		
		S. GHOSAL and R. MEHROTRA. Orthogonal Moment Operators for Subpixel Edge Detection. Pattern Recognition, Vol. 26 No. 2, pp. 295-306, 1993.		
		V. ULTRE and L. MACAIRE. Multispectral Edge Detection by Relaxation Algorithm. Proceedings of the SPIE- The International Society for Optical Engineering, Vol 2666, pp.252-258, 1996.		
		A.R. SMITH and J.F. BLINN. Blue Screen Matting. Proceedings of SIGGRAPH '96, Computer Graphics Proceedings Annual Conference Series, pp. 259-268. Addison Wesley. Edited by Holly Rushmeier. ISBN 0-201-94800-1.		
		T. MITSUNAGA, T. YOKOYAMA, and T. TOTSUKA. AutoKey: Human Assisted Key Extraction. Proceedings of SIGGRAPH '95, Computer Graphics Proceedings, Annual Conference Series, pp. 265-272. Addison Wesley. Edited by Robert Cook. ISBN 0-201-84776-0.		
		G. AVRAHAMI and V. PRATT. Sub-Pixel Edge Detection in Character Digitization. Proceedings RIDT II, R. Morris and J. Audre Eds, CUP 1991, Raster Imaging & Digital Typography, pp. 54-64.		
		E.N. MORTENSEN and W.A. BARRETT. Intelligent Scissors for Image Composition. Computer Graphics Proceedings, Annual Conference Series, pp.191-198, 1995.		
		K. TOYAMA. Contours for Cutting, Tracking, and Rotoscoping. Vision Technology Group: Machine Learning & Perception. 74 pages.		

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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